

Proposed Claim Amendments

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Listing of Claims:

1 - 15 (Withdrawn)

16. (Currently Amended) A method for transparently managing containers in a network of distributed physical resources, a container comprising a plurality of data objects and an association of the plurality of data objects with a plurality of physical resources in the network assigned to the container at which the container may be stored or copied, comprising:

issuing a request ~~relating to~~ to write one or more data objects in or to a container in response to a user command;

accessing a meta-data catalog in response to the request, the meta-data catalog associating the data objects in the container with the plurality of physical resources assigned to the container, including querying meta-data about the container;

locating on or staging to a selected physical resource a copy of the container, including copying a container from one physical resource to another assigned to the container transparently to the user should a staging condition arise;

writing the data object to the copy of the container;

synchronizing the copy with any other copies that may be present in the system, or marking the changed copy for synchronization, ~~synchronizing multiple copies, or~~ ~~marking for synchronization at least one copy,~~ of a container transparently to the user should an out-of-synchronization condition arise; and

updating the meta-data catalog to reflect changes incidental to the request, including updating the meta-data for the container to reflect the write operation.

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17. (Previously Presented) The method of claim 16 wherein the meta-data for a container associates at least one cache resource and at least one archival resource with the container.

18. (Previously Presented) The method of claim 17 further comprising
generating, responsive to a request to create a container, meta-data for the container;

associating one or more physical resources with the container;

storing the meta-data in a meta-data catalog; and

allocating one or more of the physical resources to the container.

19. (Currently Amended) The method of claim 17 ~~further comprising~~ wherein:
the step of querying, responsive to a request to write a data object to a container,
meta-data about the container, including obtaining a next available offset for storing
inside in or to the container;
locating on or staging to a selected physical resource a copy of the container;
and the step of writing the one or more data objects to the copy of the container
comprises writing the one or more data objects beginning at the next available offset;
updating the meta data for the container to reflect the write operation; and
synchronizing the copy with any other copies that may be present in the system or
marking the changed copy as dirty.

20. (Currently Amended) The method of claim 17 further comprising
querying, responsive to a request to synchronize copies of a container, meta-data
for the container to locate a ~~dirty~~ copy of the container marked for synchronization;
overwriting one or more of the other copies of the container with the dirty copy;
and
resetting the dirty status of one or more of the copies of the container.

21. (Previously Presented) The method of claim 17 further comprising

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querying, responsive to a request to read a data object, or part of an object as specified by a method or parameter, from a container, meta-data for the container, including an offset for the object within the container;

locating on or staging to a selected physical resource a copy of the container; and reading the required data from the copy at the specified offset.

22. (Currently Amended) The method of either of claims 16 ~~49~~ or 21 wherein the selected physical resource comprises a primary cache resource.

23. (Previously Presented) The method of claim 16 wherein the plurality of physical resources is selected from the group comprising a file system, an archival storage system, a cache system, and a database system.

24. (Previously Presented) The method of claim 16 wherein the plurality of physical resources is selected from the group comprising object-oriented, relational, structured, and semi-structured systems.

25. (Previously Presented) The method of claim 16 further comprising receiving a request from a client, and responsive thereto, spawning a broker process, executable on a server, for responding to the request.

26. (Previously Presented) The method of claim 16 further comprising the meta-data associating at least one archival resource with the container.

27. (Previously Presented) The method of claim 16 further comprising staging a copy of the container to a cache assigned to the container in response to a container read or write request upon determining that the data objects in the container are not stored in the cache.

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28. (Previously Presented) The method of claim 16 further comprising synchronizing multiple copies of the container in response to a container write operation performed on a copy of the container stored in a cache assigned to the container.

29. (Currently Amended) The method of claim 16 further comprising marking for synchronization at least one copy of the container as stored in a cache assigned to the container in response to a container write operation performed on a copy of the container stored in the cache.

30. (previously presented) The method of claim 16 further comprising purging at least one copy of the container in response to a purge condition.

31. (previously presented) The method of claim 30 further comprising purging any cache copies of the container after synchronizing multiple copies of the container including at least one archival copy.

32. (Previously Presented) The method of claim 16 wherein the data objects in the container are unstructured.